

Atlantic Richfield Company

Roy I. Thun
Environmental Business Manager

4 Centerpointe Drive
LaPalma, CA. 90623-1066
Office: (661) 287-3855
Fax: (661) 222-7349
E-mail: Roy.Thun@bp.com

April 6, 2009

CERTIFIED – RETURN RECEIPT REQUESTED

Ms. Nadia Hollan Burke
Remedial Project Manager
U.S. Environmental Protection Agency Region 9
75 Hawthorne Street, SFD-8-2
San Francisco, CA 94105

**Subject: March 2009 Monthly Report, Yerington Mine Site, Lyon County, Nevada:
Administrative Order for Remedial Investigation and Feasibility Study, EPA Docket
No. 9-2007-0005**

Dear Ms. Hollan Burke:

Pursuant to the above referenced order issued by the U.S. Environmental Protection Agency – Region 9 (EPA), please note the following monthly status report for Atlantic Richfield Company (ARC) activities at the Yerington Mine Site (Site) during March 2009.

March 2009 Activities

Operations, Maintenance and Site Security

- Continued routine site O&M, security and bird deterrent activities. Brown and Caldwell assumed Site O&M responsibilities as of March 2.
- Continued development of the Operations and Maintenance Manual for the Pumpback Well System and the Arimetco Fluid Management System.
- Initiated the bird scare propane canons for Arimetco FMS ponds. The VLT propane canon operation was suspended per EPA and USFWS recommendation until further notice (see below).
- Repaired vandalized perimeter fence in the vicinity of the laboratory.
- A trespass issue was raised by CH2M Hill regarding access by ATVs to the northern portion of the Sulfide Tailings area located on private land adjacent to the Peri agricultural fields. ARC plans to discuss this issue with EPA.
- The Pumpback Well System (PWS) was shut down on March 25, 2009 at 9:35 AM (PST). The PWS averaged approximately 37.28 gpm for the operating period in March. All 11 wells operated 24/7 with minor downtime for preventive maintenance. PWS evaporation pond levels: north cell = 1.26 feet; middle cell = 1.34 feet; south cell = 1.63 feet.
- Arimetco heap leach fluid management system (FMS): 1) Total estimated gallons transferred from VLTSP Pond to Evaporation Pond = 0 gallons; SSP to Evaporation Pond = 0 gallons; Phase 1 Pond to Evaporation Pond = 0 gallons; 2) Pond levels: Phase 1 Pond = <1.0 foot; Evaporation Pond = 5.5 feet; VLT Pond = 9.5 feet; Slot 2 Pond = 15 feet.

A BP affiliated company



March 2009 Activities - Continued

Other Site Activities

- Continued the bottled water program (147 recipients as of March 31). One new recipient (Tippets residence, 23 E. Ward Lane; DW-94) was added to the program on March 3 (uranium value of 27 ug/L; certified letter mailed and return receipt received).
- Integral Consulting was on Site March 11 to review the PWS and FMS bird mitigation programs.
- Kris Urquhart and Kenny Pirkle (NDOW) were on a tour of the Site on March 18.
- Ilka Dinkleman, CHM2 Hill, was on-site March 20 to review groundwater sampling.
- David Seter and Vicki Rosen (EPA), Jim Harvey, Steve Abele and James Harter (USFWS), and Joe Sawyer (NDEP) were on site on March 24 to review the EPA Arimetco FMS bird deterrence program with ARC representatives. It was determined that the operation of the propane cannon at the VLT pond could be suspended and that ARC perform four visits per day to supplement the bird mitigation program at the Arimetco ponds. This approach has since been implemented for the Slot, Phase I, EPA and VLT ponds. David Seter volunteered to send out a communication to clarify and memorialize the new agreed upon procedures.
- Site O&M personnel completed 8-hour OSHA refresher training on March 10.

Site Characterization

- Site-wide monthly groundwater elevation measurements were obtained on March 24-25.
- A pit lake elevation of 4217.89 feet amsl was recorded on March 26 from the pressure transducer, an increase of 0.40 feet over a 4-week period (since February 26) and an increase of 2.93 feet in the past year (since March 26, 2008).
- Continued meteorological monitoring at the AM-6 location.
- Initiated preliminary risk calculations associated with the inhalation pathway for a baseline human health risk assessment.
- Submitted the updated Background Soils Data Summary Report (Revision 1) on March 9.
- Submit metadata information to EPA for the Site GIS on March 17.
- Coordinated with EPA on final modifications to the Shallow Zone Characterization and Pumpback Well System Work Plans.
- Conducted 1Q 2009 groundwater monitoring activities from March 1 to March 11. Nine new monitor wells installed as part of the PWS Work Plan (see below), which were sampled on March 25 and 26 after they were developed. Four active monitor wells were not sampled due to insufficient water in the well casings (USGS-13S, USEPA-2S, W5AA-3S and LEP-MW-7S).
- Conducted kick-off and daily health and safety meetings with drill crew personnel for the PWS characterization (Cascade Drilling) and the shallow zone characterization (WDC).
- From February 24 to March 25, ARC installed, developed, slug tested and sampled six shallow zone, and three intermediate-zone, monitor wells associated with the PWS Characterization Work Plan (LEP-MW-1S, -2S, -3S, -4S, -5S, -6S, -7S, -4I, -8I2, and -9I2).
- Purchased and installed permanent data loggers in 24 monitor wells including B-3, B/W-1D1, B/W-2I, B/W-3I, B/W-4I, B/W-9I, B/W-10S, B/W-18S, B/W-25I, B/W-28S, B/W-28I, B/W-29S, B/W-29I, MW2002-2S, P-1S, USGS-13S, W5AA-2S, W5AA-3S, W5AB-2S, W5BB-2, W5AA-1I, LEP-MW-4I, LEP-MW-8I2, and LEP-MW-9I2.
- Instrumented six of the 11 PWS wells with rented data loggers and monitored water levels using electronic and/or manual measurements in all 11 wells subsequent to the PWS shutdown on March 25.

Site Characterization - Continued

- With the permission of Mr. Peri, installed iButton data loggers provided by the EPA on three groundwater wells used by Mr. Peri for agricultural irrigation.
- Completed the community outreach program for the Shallow Zone) Characterization Work Plan activities north of the Site by mailing informational letters to residents in the Sunset Hills area that describe the drilling and sampling activities.
- Conducted clearance activities (utility location, geophysics and air knife) for proposed geoprobe sampling sites for the shallow zone groundwater investigations north of the Site.
- Coordinated with EPA for the collection of duplicate samples from the shallow zone program.
- Collected shallow zone groundwater samples from the three initial locations specified in the Shallow Zone Characterization Work Plan (B/W-2S, B/W-3S and W5AB-2S sites), sites on Ryan's property north of Luzier Lane, and sites on Peri's property (agricultural fields located adjacent to the Site). Completed electrical conductivity logging at 47 of the 98 (48%) geoprobe locations.
- Initiated the development of SOPs for isotope analyses based on discussions with the laboratories performing the analyses, reviewed boron isotope data, and evaluated hydrologic tracer and chemical data associated with the Site-Wide Groundwater Operable Unit (OU).
- Continued the compilation and interpretation of field information and laboratory analytical data associated with the Anaconda Evaporation Ponds Removal Action Characterization Work Plan. Continued vadose zone modeling for the evaporation ponds.
- Continued preliminary engineering activities associated with the removal action for the Ponds.
- Attended a technical meeting with EPA via teleconference on March 19 to discuss the Conceptual Site Model (Revision 3), the Air Quality Monitoring Data Summary Report, the Evaporation Ponds Removal Action Characterization Data Summary Report and the removal action for the Ponds.
- Attended a meeting on March 30 with Yerington Paiute Tribe members (and EPA by phone) to discuss plants and animals of interest to the Tribe's cultural practices. The Tribe requested that ARC prepare a comprehensive list of plants known to be used by the Tribe that may grow in the vicinity of the Site.
- Continued Site wildlife surveys.

Site Issues

- Non-Routine pumping continues out of the Slot Pond Leak detection sump at a rate of approximately 1.2 gallons per minute. Leak assessment work to be performed by EPA is still pending

Planned April/May 2009 Activities

- Continue routine O&M and site security activities, including modifications resulting from the PWS shutdown, and modified bird deterrent activities for the Arimetco FMS ponds (described above).
- Submit the revised draft Site O&M Manual.
- Continue implementation of the PWS Characterization (monitoring) and Shallow Zone Characterization (sample collection) Work Plans, and submit a well construction (letter) report for the nine new monitor wells associated with the PWS.
- Continue meteorological monitoring at AM-6.
- Continue groundwater elevation and pit lake level monitoring.
- Initiate PWS decommissioning activities including: 1) pulling pumps out of the wells and inspecting, cataloging and storing the pumps; 2) develop a management plan for the PWS evaporation ponds during the shutdown period; and 3) continue detailed hydrologic monitoring pursuant to the PWS Characterization Work Plan.

- Initiate the detailed engineering design for the Evaporation Ponds Removal Action including geotechnical investigations and surveys of the Ponds.
- Initiate the draft work plan for the transite pipe removal action.
- Initiate preliminary engineering evaluations and the design of an on-Site landfill.
- Attend a groundwater technical meeting in May to discuss the current status of the PWS and Shallow Zone Characterization Work Plans and hydrogeologic conceptual site model (groundwater flow and chemical conditions), identify additional data gaps and any applicable short-term investigation activities, and the schedule to submit the revised Site-Wide Groundwater Remedial Investigation Work Plan.
- Submit the Process Areas MARSSIM Characterization Work Plan.
- Continue Site wildlife surveys.
- Upon receipt of EPA review comments, submit the updated version of the QAPP (Revision 4), the CSM (Revision 3) and other documents requested by EPA.

If you have any questions or comments, please feel free to contact me at (661) 287-3855 or via e-mail at Roy.Thun@bp.com.

Sincerely,



for Roy Thun
Environmental Business Manager

cc: Dave Seter, EPA – via electronic mail
Mike Montgomery, EPA – via electronic mail
Roberta Blank, EPA – via electronic mail
Andrew Helmlinger, EPA – via electronic mail
Tom Dunkelman, EPA – via electronic mail
Joe Sawyer, NDEP – via electronic mail
Tom Olsen, BLM – via electronic mail
Dan Newell, City of Yerington – via electronic mail
Phyllis Hunewill, Lyon County Commissioner – via electronic mail
Dennis Stark, Lyon County Manager – via electronic mail
Chris Winsor, Atlantic Richfield Company - via electronic mail
James Lucari, Atlantic Richfield Company – via electronic mail
John Batchelder, Atlantic Richfield Company – via electronic mail
Jim Chatham, Atlantic Richfield Company – via electronic mail
Rich Curley, Curley and Associates, LLC – via electronic mail
Lyon County Library System Central